

A CASE WITH RANDOMLY ADJUSTING HANDLE

Background of the Invention

1. Field of the Invention

5 The present invention relates to a handle for a case, more particularly, and to a case with randomly adjusting handle which discloses a structure to provide the handle for spinning and moving in the horizontal direction.

10 2. Description of the Related Art

 The handle of luggage case usually uses in one-way as the moving trace being parallel the case. The luggage cases of various designs, used by people for the containment and transport of articles such as clothing and the like, have been in existence for hundreds of years.

15 Recently a category of luggage cases has appeared that includes a pull out handle and a set of wheels, thereby allowing a user to roll his or her case along the ground while grasping the horizontally disposed extended handle.

 Although these types of luggage cases are convenient, the moving
20 of handle is not the most convenient or comfortable way for the users hand to use the luggage case. Currently, the users hand must be twisted ninety degrees from its normal orientation in order to grasp the existing horizontal pull handle. This twisted position can be fatiguing after a short period. Additionally, the pull out handles on many luggage
25 cases do not pull out far enough for the users foot, particularly a tall user, not to trip over the case as he or she is walking.

Summary of the Invention

It is an object of the present invention to provide a case with adjusting handle which provides a convenient structure of handle moving an angle for pulling the case.

To achieve above mention, the handle of case of the present invention comprises a shell, frame, spring, fastening member, positional member, sleeve and removable member. Further, the shell comprises a button depositing an opening in the top. The button connects to the removable member between the frame, spring, fastening member, positional member and sleeve. When the user presses and holds the button of shell, the removable member could move down and turn an angle resulting in the handle moving an angle.

It is to be understood that both the foregoing general description and the following detailed description are exemplary, and are intended to provide further explanation of the invention as claimed.

Brief Description of the Drawings

The accompanying drawing is included to provide a further understanding of the invention, and is incorporated in and constitutes a part of this specification. The drawing illustrates an embodiment of the invention and, together with the description, serves to explain the principles of the invention. In the drawing,

Fig. 1 is a schematic view showing the handle connecting to the case of the present invention ;

Fig. 2 is an explosive views showing the handle connecting to the

case of the present invention ;

Figs. 3A and 3B are sectional view and side-sectional view showing the handle of the case of the present invention ;

5 Figs. 4A and 4B are sectional view and side-sectional views showing the removable member of handle of the case operating of the present invention;

Figs. 5A and 5B are side-sectional views showing the moving of the removable member of the present invention ; and

10 Figs. 6A and 6B are illustrate views showing the operating state of the present invention.

Detailed Description of the Preferred Embodiments

Reference will now be made in detail to the preferred embodiments of the present invention, examples of which are illustrated in the
15 accompanying drawings. Wherever possible, the same reference numbers are used in the drawings and the description to refer to the same or like parts.

Refer to Figs. 1 and 2, which are a schematic and an explosive
views showing the handle connecting to the case of the present
20 invention.

The handle of case of the present invention comprises a case 1, a shell 10, a frame 20, a spring 30, a fastening member 40, a positional member 50, a sleeve 60 and a removable member 70.

25 The shell 10 comprises a main shell 14 having a hollow body, a left shell 16 having a hollow body and a right shell 18 having a hollow body. The main shell 14, left shell 16 and right shell 18 are assembled by

screws. The main shell 14 has an opening 142 at the top which deposits a button 12 in it.

The frame 20 comprises two ears 22 opposed to each other in the proper position to fasten on the shell 10 by screws. Further, the frame
5 20 could easily move down and up because the size of ears 22 is larger than the one of screw. The frame 20 comprises a pivotal hole 24 in the bottom and the top of it touches with the button 12.

The fastening member 40 is fastened on the shells 16, 18 by slots 162 of the right, left shells 16, 18, and has a hole 42 in the center.
10 Further more, the spring 30 deposits between the frame 20 and the fastening member 40.

The positional member 50 has a screw hole 52 in the center and is fastened on the case 1. And, the sleeve 60 is fastened on the screw hole 52 of member 50 and the hole 42 of member 40 by the screw
15 threads of the sleeve 60. Therefore, the sleeve 60 passes the positional member 50 to connect to the member 40. The bottom of sleeve 60 has an annular member 64 being fastened on a channel 622 of connecting members 62. And, the members 62 have two ears 620 in both to pivotally connect to the case 1.

20 The removable member 70 comprises a strip 72 at the center and two pins 74 surrounding the strip 72. And, the strip 72 passes the sleeve 53 to pivotally couple to the hole 24 of frame 20.

Refer to Figs. 3A and 3B, which are sectional view and side-sectional view of the handle of the case of the present invention.

25 The removable member 60 deposits in a room 2 which the size of room 2 is large of the one of removable member 60. Further, the

removable member 70 connects to the button 12 between the spring 30 and the frame 20 depositing in the shell 10. Refer to Figs. 4A and 4B, press the button 12 makes the removable member 70 moving down because the button 12 compresses the spring 30 by passing the frame
5 20.

And, refer to Figs. 5A and 5B, which are side-sectional views showing the moving of the removable member of the present invention.

The removable member 60 could move down when a user presses the button 12. Holding the button 12 moves a direction and releasing
10 the button 12 makes the removable member 70 back by the spring 30 resulting in the handle moving an angle. Further, the connecting members 62 is moved the angle being same as removable member 70 because the sleeve 60 couples to the members 62 which pivotally connects to the case 1 by ears 620.

15 Refer to Figs. 6A and 6B, which are illustrate views showing the operating state of the present invention.

The handle 5 of the present invention could move any angle which includes operating in twisting and moving in the horizontal direction as the case 1 vertical coupling to the handle 5.

20 The handle of case of the present invention discloses a structure for randomly twisting any angle. The handle of the present invention comprises the button, frame, spring, fastening member, positional member, sleeve and removable member. And, the button, frame, spring, fastening member, positional member, sleeve and removable
25 member orderly connect to each neighbor element. When the user presses the button, the removable member could move down to move

an angle. Therefore, the handle could move an angle by pressing the button for providing a convenient structure.

Therefore, the foregoing is considered as illustrative only of the principles of the invention. Further, since numerous modifications and
5 changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described, and accordingly, all suitable modifications and equivalents may be resorted to, falling within the scope of the invention.